

## December 2017

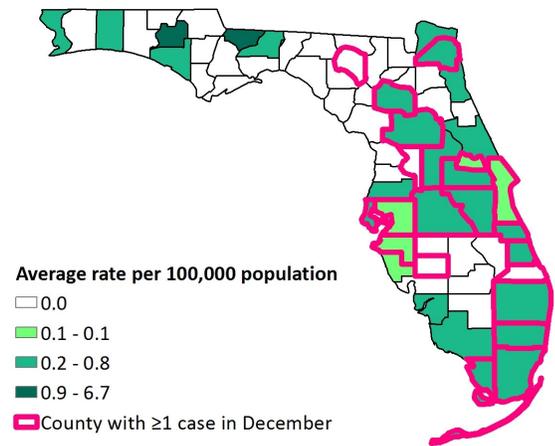
### Summary

#### State varicella activity:

- Sixty-one confirmed and probable varicella cases were reported among 21 counties in December.**
  - Reported varicella cases are starting to increase after having remained lower throughout the summer and fall. This is consistent with seasonal trends in past years.
  - From January 1, 2017 through December 31, 2017, 655 cases of varicella were reported among 53 of Florida's 67 counties.
- A decreasing trend in the number of confirmed and probable cases of varicella reported annually in Florida was observed from 2008-2014. Since then, the number of cases reported annually has remained elevated. In 2017, the number of varicella cases is slightly lower than the number observed in 2016.
- No outbreaks of varicella were reported in December.**
- In December, children age less than one years old had the highest incidence of varicella.** This is consistent with what was observed for the majority of months in 2017.
- Vaccination is the best way to prevent varicella infections.** In December, 24 (39%) cases were not up to date on their varicella vaccinations. In general, those who have received at least one varicella vaccination even if they later develop disease have less severe outcomes than those who have never been vaccinated.
- In December, infants infected with varicella who were too young for vaccination were most likely to visit the emergency department. Few varicella cases require inpatient hospitalization.
- To learn more about varicella, please visit <http://www.floridahealth.gov/varicella>.

Map 3

Average Varicella Incidence Rates per 100,000 Population, September 2017 through November 2017



#### National varicella activity:

- Varicella incidence decreased significantly since a vaccine became available in 1995 and has continued to decrease since 2006 when recommendations changed from one to two doses of varicella vaccine.
  - From 2006–2015 all age groups saw a significant decrease in incidence with the largest decline in children age 5-9 years and age 10-14 years.
- Although varicella is not reportable in all states and therefore not all states report varicella cases to the CDC, based on available data the number of varicella cases nationally has steadily decreased each year from 2012-2015.

#### Surveillance goals:

- Varicella surveillance is conducted to identify and control outbreaks and monitor trends and severe outcomes.
- Surveillance is also conducted to monitor effectiveness of immunization programs and vaccines. For more information on the data sources used in Florida for varicella surveillance, see page 11 ►

### Varicella Cases by Month Reported

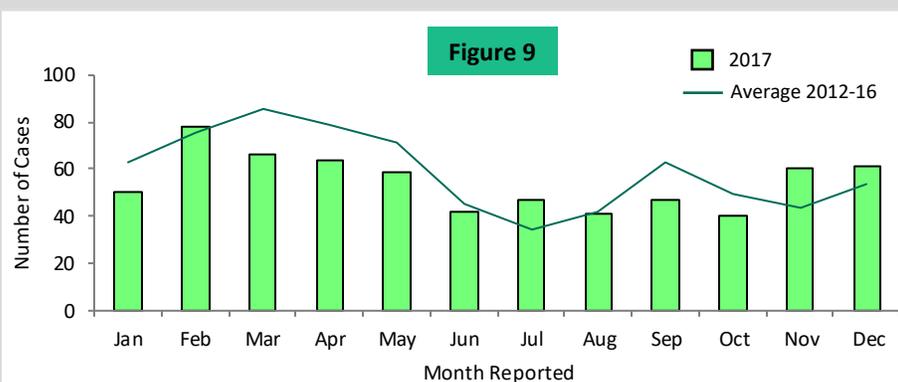


Figure 9 shows the number of confirmed and probable cases of varicella reported into Merlin, January 2017 through December 2017 and the previous five-year average.

In December, the number of reported varicella cases remained elevated. In 2017, the number of reported varicella cases has been below average except for peaks in February, July, November, and December which were around the same time as four outbreaks. In general, varicella cases peak in the spring and fall.

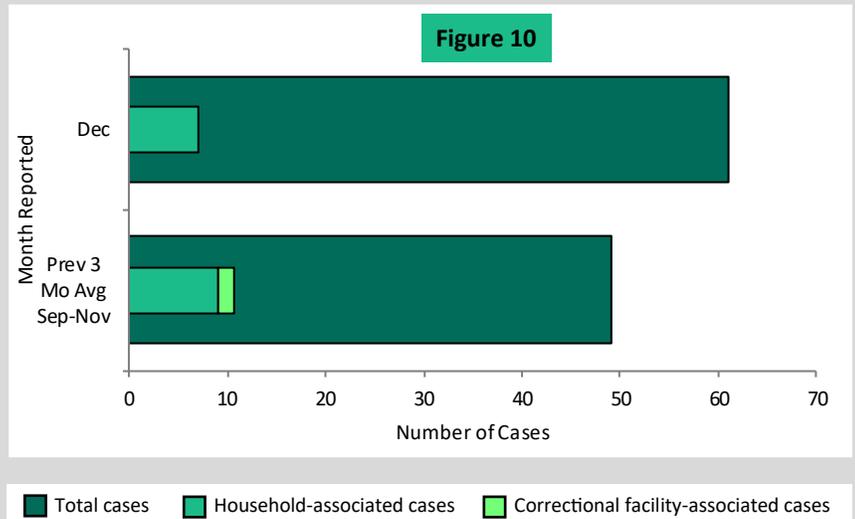
## Varicella Outbreaks

**Figure 10** shows the number of confirmed and probable cases that were associated with at least one other case and the total number of confirmed and probable cases as reported into Merlin, December 2017 and the previous three-month average. Cases associated with at least one other case are shown by type of association.

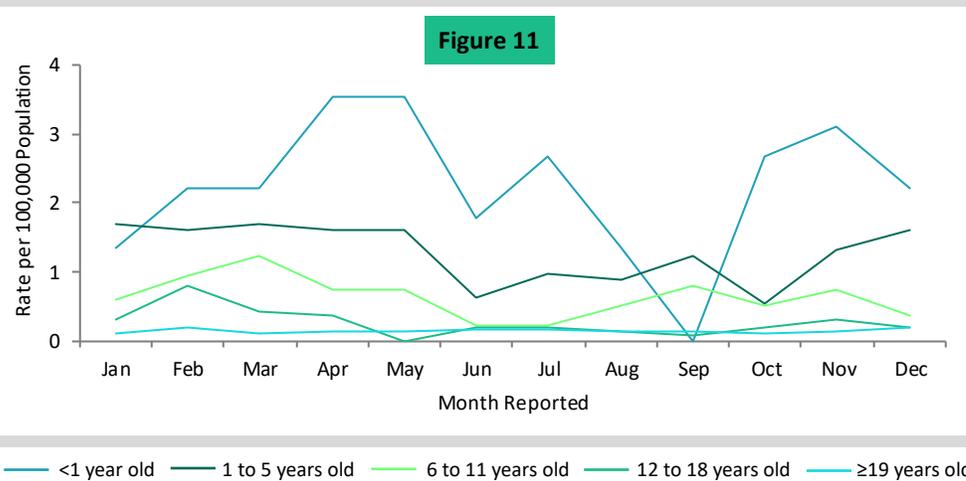
**In December, 7 (11%) cases were associated with other cases through living in the same household.**

### Outbreak Summary:

**No outbreaks of varicella were reported in December.** In 2017, a total of five outbreaks of varicella were reported. Three outbreaks were in correctional facilities, one outbreak was in a daycare, and one outbreak was in a mental health hospital.



## Varicella Age-Specific Incidence Rates



**Figure 11** shows the age-specific incidence rates of confirmed and probable cases of varicella, as reported into Merlin, January 2017 through December 2017.

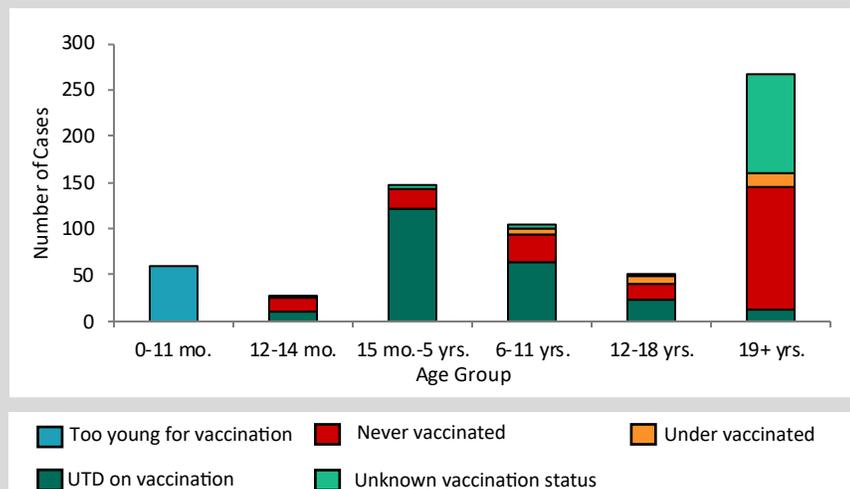
**In December, the incidence rate was highest among infants less than one year old.** This is consistent with trends seen earlier in 2017. Infants less than one year old are too young to receive vaccinations against varicella, which is why vaccination of other age groups is so important to help prevent infection in infants.

## Vaccination History for Varicella Cases

UTD = up-to-date

**Figure 12** shows the vaccination status of varicella cases by age group for confirmed and probable cases of varicella, as reported into Merlin, January 2017 through December 2017 (n=655).

**Varicella vaccinations are recommended at 12-15 months of age and 4-6 years of age.** Of the 147 cases reported in children aged 15 months-5 years, the majority (82%) were up to date on their varicella vaccinations, while about half (55%) of the cases in children aged 6 to 18 years were up to date.

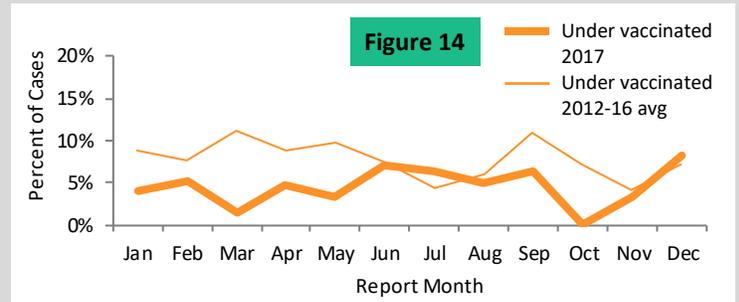
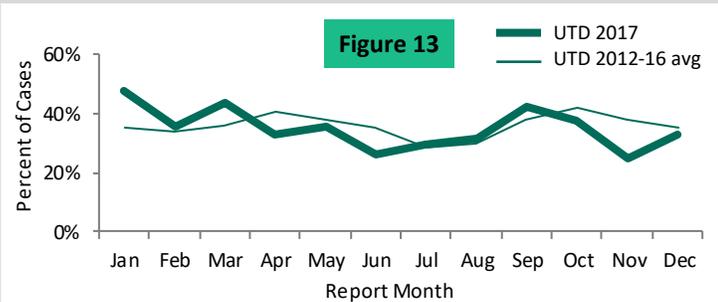


## Varicella Cases in Vaccinated Individuals

UTD = up-to-date

**Figure 13** shows the percent of confirmed and probable varicella cases who were up to date on their varicella vaccinations, as reported into Merlin, January 2017 through December 2017 and the previous five-year average. **Figure 14** shows the percent of these cases who were under vaccinated during the same time periods.

**Although individuals who have been vaccinated can still get varicella, vaccination remains the best way to prevent varicella and severe complications.**



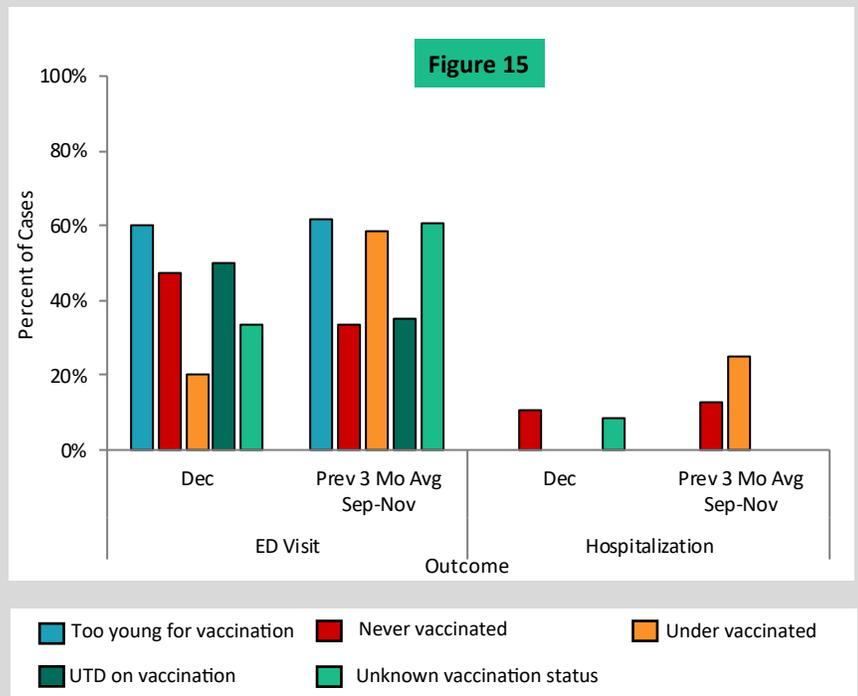
## Varicella Outcomes

UTD = up-to-date, ED = emergency department

**Figure 15** shows the percent of confirmed and probable cases of varicella with select outcomes by vaccination status, as reported into Merlin, December 2017 and the previous three-month average.

**In general, cases who were UTD on their vaccinations were less likely to experience fever and vesicle lesions. Cases too young to be vaccinated or not yet vaccinated were more likely to experience papule lesions.**

**In December, infants too young for vaccination were most likely to visit the emergency department. Few varicella cases require inpatient hospitalization; recent cases requiring hospitalization were either never vaccinated or of unknown vaccination status.**



## Case Data

- Pertussis, varicella, and mumps are reportable diseases in Florida. Case information is documented by county health department (CHD) epidemiologists in Merlin, Florida's reportable disease surveillance system.
- CHD epidemiologists also report outbreaks of pertussis, varicella, and mumps into Merlin. Outbreaks are defined as two or more cases associated with a specific setting outside of the home. Two or more cases among members of the same household are considered household-associated cases.
- Current case information is preliminary and may change as more data are received. The most recent data available are displayed in this report.
- For more information about reportable diseases, please visit [www.Floridahealth.gov/diseasereporting](http://www.Floridahealth.gov/diseasereporting).

## Population Data

- Population data used to calculate incidence rates are from FLHealthCHARTS (Community Health Assessment Resource Tool Set).
- For more information about FLHealthCHARTS, please visit [www.flhealthcharts.com](http://www.flhealthcharts.com).

## Vaccination Data

- Vaccination data from cases are from Merlin, as identified by CHD epidemiologists.
- Vaccination status is determined using the Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, 2017.
- Cases are considered up-to-date if they have received the recommended number of doses of vaccine for a particular disease for their age at the time of their illness onset. Cases are considered under vaccinated if they have received at least one but not all doses of vaccine recommended for a particular disease for their age at the time of their illness onset.
- For more information about immunization schedules, please visit <https://www.cdc.gov/vaccines/schedules/index.html>.